

## REMARKS

Before discussing the issues raised by the examiner in the outstanding office action, applicant first wishes to thank the examiner for the courtesy extended to the below signed attorney during the telephonic interview on June 27, 2003. The undersigned attorney during the interview advised the examiner that the claimed labels of the present invention utilize the plastic film material of parent application no. 09/008,292 which has matured into U.S. patent no. 6,306,490. Accordingly, it should not be necessary to raise and discuss in detail the questions of novelty and obviousness which were resolved in the aforementioned parent application.

The cited references and the alleged double patenting between claim 28 and claim 8 of the '490 patent were also discussed during the telephonic interview. The points raised during the interview as well as additional arguments in support of the claimed invention are more particularly discussed below.

Applicant first wishes to emphasize that the present invention relates to labels made from a co-extruded polymeric film having a core layer of voided propylene homopolymer co-extruded with at least one substantially non-voided layer on each surface of the core layer. The novel and unobvious aspect of the invention relates to the selection of a specific ratio of the combined thicknesses of the non-voided layers on the respective surfaces of the core layer to achieve an anti-curling effect. The critical ratios are from 2:1 to 1:1. Thus, the invention is an invention of selection with respect to the aforementioned ratios which give rise to the anti-curling effect.

Although an anti-curling effect may be obtained by the selection of other characteristics of these types of films, applicant is the first to discover that selecting the aforementioned ratios will lead to an anti-curling effect. In short, while other similar films may be associated with an anti-curling effect, prior to applicant's invention, no one has obtained an anti-curling effect solely by the selection of the aforementioned ratios.

With respect to the aforementioned ratios, it will be recalled that in one embodiment of the invention there is only one non-voided layer on each side of the voided core layer. Thus the ratio of thickness of one non-voided layer to the other non-voided layer must be within the range of 2:1 to 1:1 as recited in the claims. Likewise, when the film includes 2 or more non-voided layers on each side of the voided core, the ratio of the combined thickness of the non-voided layers in the respective surfaces of the core layer is also from 2:1 to 1:1 as recited in the claims. In this regard it is to be noted that examples 1-4 illustrate a film which contains 5 layers (i.e., a core layer containing an intermediate and an outer layer on one side thereof and an intermediate layer and an outer layer on the other side thereof). In each of these examples the ratio of the combined thickness of the non-voided layers on the respective surfaces of the core layer is within the range 2:1 to 1:1. For example, the combined thickness of the intermediate and outer layers on one side of the film of example 1 is 4.5 microns (3.0 microns for the intermediate layer and 1.5 microns for the outer layer). The other non-voided layers of example 1 have a combined thickness of 4.0 microns (2.0 microns for the intermediate layer and 2.0 microns for the outer layer). Thus the ratio of the combined thickness of the non-voided layers on the respective surfaces of the core layer in example 1 is 4.5:4 (i.e., 1.125).

The examiner notes that the prior art references also are associated with an anti-curling effect. The examiner's point that an anti-curling effect is achievable with other similar films is well taken. However, it is not the anti-curling effect itself which applicant has discovered. Instead, applicant's discovery relates to the specific selection of the aforementioned ratios as a new and unobvious means for achieving an anti-curling effect.

The mere fact that other similar films have an anti-curling effect does not mean that these films use the same ratios as recited in applicant's claims. This is because an anti-curling effect may be obtained by controlling other characteristics of the multi-layered film. Thus, contrary to the examiner's observation, there is no basis to conclude that other films which have an anti-curling effect inherently have the same ratio as recited in applicant's claims.

Turning now to the rejections, the examiner has rejected claims 13-36 under 35 U.S.C. § 103 as being unpatentable over WO '742. In addition the examiner has rejected claims 17-20 and 32 under 35 U.S.C. § 103(a) as being unpatentable over WO '742 in view of Crighton et al. and the examiner has rejected claims 21-24, 27 and 33 under 35 U.S.C. § 103(a) as being unpatentable over WO '742 in view of Carespodì. In rejecting the claims the examiner notes that the rejections are substantially for the same reasons set forth in paragraph 5 of paper no. 4 together with additional observations in item 2 on pages 2-3 of the office action. Applicant has carefully considered these rejections but they are most respectfully traversed for the reasons discussed below.

The primary reference relied upon by the examiner is WO '742. Applicant submits that this reference fails to disclose or suggest the selection of the aforementioned ratio to obtain an anti-curling effect. The primary reference

discloses a film which comprises an extruded core layer, an intermediate non-voided layer and an outer skin layer of a polyolefin which includes titanium dioxide as a pigment.

Applicant's claims require that the layers which are co-extruded onto the core layer must be non-voided. Although WO '742 states that the intermediate layer is a non-voided layer, this reference provides absolutely no disclosure or suggestion that the outer skin layer is also non-voided as required by applicant's invention. Although '742 indicates that the titanium dioxide pigment used in the outer layer should have a mean particle size which is too small to cause voiding of the outer layer (see page 4, second paragraph) this does not mean that other types of void inducing particles must be excluded. In fact, all of the examples of WO '742 which have a voided core, also include particles in the outer layer which are of sufficient size to cause voiding. In this regard it is to be noted from the second paragraph on page 4 of WO '742 that particle sizes of less than one micron are required for the titanium dioxide pigment to prevent the titanium dioxide pigment from causing voiding in the outer layer. Thus, it is self-evident that particle sizes in excess of this critical size limitation will cause voiding. As discussed below, the outer layer of the WO '742 film include such large void causing particles.

Example 1 includes an outer layer which includes 0.1 wt. % of silica having a mean particle size of approximately 3.5 microns which greatly exceeds the threshold of 1 micron noted above. Thus, it is self-evident that the outer film of example 1 will be voided due to the large silica particles contained therein. Examples 2-9 utilize the same outer layer of example 1. Thus, examples 1-9 require the use of large size particles which, according to the disclosure of WO '742 will cause voiding in the outer layer. Examples 10 and 11 are silent with

respect to whether the outer layer is voided. However, these two examples are not relevant because they both utilize a core layer which is non-voided due to the use of titanium dioxide particles having a particle size which is less than 1 micron in diameter. As noted above, voiding will not occur with such small sized particles.

In view of the above, it is clear that the primary reference does not disclose or suggest an outer non-voided layer on a voided core layer as required in applicant's invention. Furthermore, this reference provides absolutely no disclosure or suggestion that an anti-curling effect can be achieved by selecting the ratios of applicant's invention. Moreover, selecting the ratios required by applicant in the films disclosed by WO '742 will not result in applicant's invention since WO '742 does not disclose a non-voided outer layer on a voided core layer for the reasons discussed above.

Additionally, any allegation of *prima facie* obviousness is clearly rebutted by the comparative data contained in applicant's specification. The examiner urges that the comparative data in the specification is inappropriate in rebutting the examiner's allegation of *prima facie* obviousness. Applicant most respectfully disagrees with the examiner on this point. In this regard applicant once again wishes to emphasize that it is the selection of the critical range of ratios which leads to the anti-curling effect according to applicant's invention. Accordingly, in order to establish the criticality of this particular ratio, the ratio must be varied while all other parameters remain constant. Any other type of comparison will not establish that applicant is able to achieve an anti-curling effect solely by the regulation of the aforementioned ratios.



The comparative data in applicant's specification clearly establish that the anti-curling effect is achieved when operating within the critical ratio and that the anti-curling effect is not achieved when operating outside of this ratio. In this regard it is to be noted that applicant has made a comparison between the films of the invention (examples 1-4) and a comparison film (example 5). Examples 1-4 utilize the ratios recited in applicant's independent claims (claims 13 and 28). Comparison example 5 uses a ratio which lies outside of this range (2.25:1). It is noted in the specification that the films of the invention (examples 1-4) showed no curl in the curl test which is described on page 5 of the specification. In contrast, the comparative film of example 5 showed a curl toward the printed face. Thus the comparative data contained in the specification clearly shows that the defined ratio is critical to achieve the anti-curl benefit of applicant's invention. Although anti-curl properties may be obtained by regulating other parameters, none of the references, either alone or in combination with each other, even remotely disclose or suggest that maintaining the ratios within the critical amount defined by applicant's invention can also lead to an anti-curling effect.

With respect to the comparison shown in the specification, applicant once again wishes to remind the examiner that comparative examples set forth in the specification which show unexpected results overcome any presumption of obviousness (*ex parte Drewe et al.*, 203 USPQ 1127).

In view of the above, it is clear that claims 13-36 are not rendered obvious by WO '742.

With respect to the rejection of claims 17-20 and 32 under 35 U.S.C. § 103 as being obvious over WO '742 in view of Crighton et al., applicant submits this rejection is also untenable and should be withdrawn in view of the above-noted

deficiencies with respect to the primary reference (WO '742) and in view of applicant's demonstrated criticality with respect to the anti-curling effect achieved by the selected ratio. Crighton et al. do not compensate for the above-discussed deficiencies of the primary reference. Accordingly applicant submits that the combined teachings of WO '742 and Crighton et al. do not disclose or suggest the anti-curling effect achieved by the selected ratio of applicant's invention.

The same rationale applies to the rejection of claims 21-24, 27 and 33 under 35 U.S.C. § 103(a) as being unpatentable over WO '742 in view of Carespodì. In other words Carespodì does not compensate for the above-noted deficiencies of the primary reference and moreover this reference also fails to disclose or suggest the unique anti-curling benefit achieved through the selected ratio recited in applicant's claims. Furthermore, Carespodì is not concerned with achieving an anti-curling effect for a co-extruded film. In this regard applicant wishes to remind the examiner that Carespodì pertains to a **laminate** for making a container lid, not film for making a label. In addition, the layers used by Carespodì are laminated together by an adhesive. Thus, Carespodì addresses curling problems with regard to laminated films which include the aforementioned adhesive, not to curling problems associated with co-extruded films which do not depend on adhesive layers for bonding the outer non-voided layers to the voided core layer.

In view of the above, applicant submits that the rejections based upon WO '740 individually as well as the rejections based upon the combined teaching of WO '740 with Crighton et al. and Carespodì should be withdrawn.

The examiner has rejected claim 28 under 35 U.S.C. § 101 as being a duplicate of claim 8 of U.S. patent no. 6,306,490. Applicant has carefully considered this rejection but it is most respectfully traversed for the reasons discussed below.

Claim 8 of the '490 patent is a label made out of the film of claim 1. Claim 1 recites "optional printing on an exposed surface of said film". In contrast, claim 28 of the present application is directed toward a label made from a polymeric film. Claim 28 recites "said label including printing on an exposed surface" of the film. Thus, it is clear that claim 8 of '490 is of broader scope than claim 28 of the present application since claim 8 optionally includes printing (and thus includes unprinted labels within the scope of the claim) whereas claim 28 specifically requires printing on an exposed surface of the film. Thus, pending claim 28 is not a duplicate of claim 8 of the '490 patent.

Applicant has amended claim 13 to make it clear that the polymeric film is a co-extruded film wherein at least one substantially non-voided layer is co-extruded on each surface of the voided core layer. In addition claim 13 has been amended to require an adhesive on the film and has been further modified to include the thickness limitation of claim 14 therein.

In view of the above arguments and amendment to the claims, applicant respectfully requests reconsideration and allowance of all the claims which are currently pending in the application.



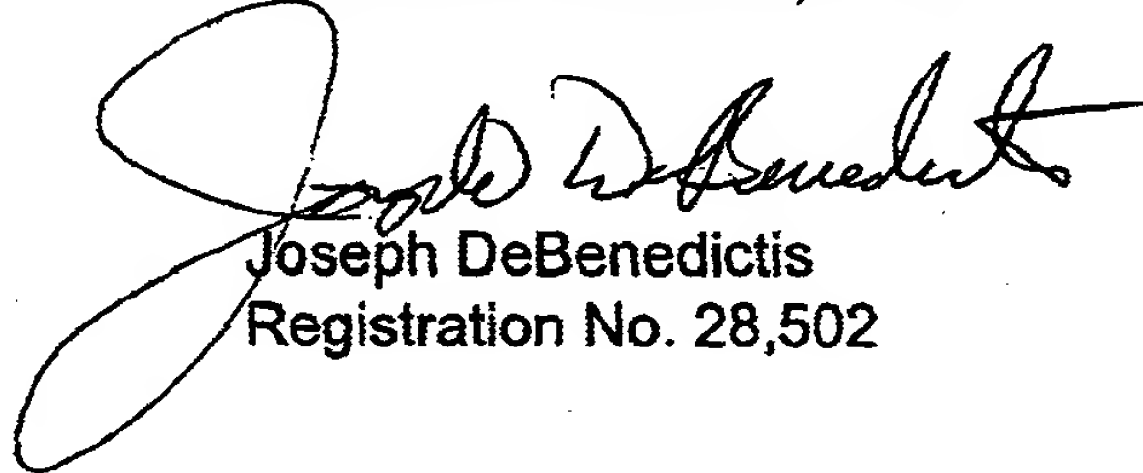
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Attached hereto is a marked-up version of changes made to the application by this amendment. The attachment is captioned "Version with Markings to Show Changes Made".

Respectfully submitted,

BACON & THOMAS, PLLC

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

Please cancel claim 14 without prejudice or disclaimer with respect to the subject matter recited therein.

Please amend the below claims as follows:

13. (Amended) A label made from a co-extruded polymeric film; said label [ optionally ] containing an adhesive thereon; said film being a biaxially oriented co-extruded polymeric film comprising [ a ] an extruded core layer of a voided propylene homopolymer having a density of not more than  $0.70 \text{ g/cm}^3$ , and at least one substantially non-voided layer co-extruded on each surface of the core layer, the ratio of the combined thicknesses of the non-voided layers on the respective surfaces of the core layer being from 2:1 to 1:1; with the proviso that said polymeric film has an overall thickness of at least 30 microns.

15. (Amended) The label of claim [ 14 ] 13 wherein said polymeric film has a thickness of at least 50 microns.